UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,196	04/19/2004	Chun-Huang Lin	92,000-023 (PA-1009US)	2332

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EXAMINER
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ART UNIT	PAPER NUMBER
2629	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/827,196	LIN ET AL.
	Examiner	Art Unit	
	Abbas I. Abdulselam	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *22 May 2007*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *6,9,16 and 18-20* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) *9 and 18-20* is/are allowed.

6) ☒ Claim(s) *6 and 16* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☒ All   b) ☐ Some *   c) ☐ None of:

   1. ☒ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1.   This office action is in response to a communication filed on May 22, 2007. Claims 6, 9,

16 and 18-20 are pending. Claims 1-5, 7-8, 10-15 and 17 are cancelled.

Specification

2.   The disclosure is objected to because of the following informalities: Paragraph [0006],

[0007] and [0021] state preset conditions. However, the paragraphs do not elaborate preset

values as claimed in claims 18-19. Appropriate correction is required.

Response to Arguments

3.   Applicant's arguments filed on May 22, 2007 have been fully considered but they are not

persuasive.

With respect to claim 6, applicant has amended claim 6, which was previously objected

by writing in independent form including all of the limitations of the base claims (original claims

1, 4 and 5). However, It was not properly done. The claim limitations "first preset value" and

"second preset value" as claimed in the original claim 6 are not included in the present amended

claim 6. Simply substituting 0 for those claim limitations without stating "first preset value" and

"second preset value" does not make the newly amended claim 6 allowable. As a consequence

the newly amended claim 6 is rejected (because 32512 cpi is not equal to 0 as shown in the

rejection below). It is recommended that the limitation in claim 6 should be amended as

".......the first directional accumulated value is not equal a first preset value and the second

directional accumulated value is not equal to a second preset value such that the first preset value

is 0 and the second preset value is 0."

Likewise, With respect to claim 16, applicant has amended claim 16, which was

previously objected by writing in independent form including all of the limitations of the base

claims (original claims 11, 14 and 15). However, It was not properly done. The claim limitations

"first preset value" and "second preset value" as claimed in the original claim 16 are not included

in the present amended claim 16. Simply substituting 0 for those claim limitations without

stating "first preset value" and "second preset value" does not make the new claim 16 allowable.

As a consequence the newly amended claim 16 is rejected (because 32512 cpi is not equal to 0 as

shown in the rejection below). It is recommended that the limitation in claim 16 should be

amended as

".......the first directional accumulated value is not equal a first preset value and the second

directional accumulated value is not equal to a second preset value such that the first preset value

is 0 and the second preset value is 0."

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Lauffenburger et al. (USPN 7161585) in view of Kemper et al. (USPN 6509889).

Regarding claim 6, Lauffenburger et al. (hereinafter = "Lauffenburger") (USPN

7161585) teaches a pointing device *(col. 3, lines 7-11, an optical pointing device)*

comprising: a locus processing circuit *(Fig. 1 (2))* receiving a digitized displacement and

executing an accumulation procedure to generate an accumulated value of displacement *(col. 6,*

lines 20-28, FIG. 2 (20,21, 22), Post processing unit (2) includes

accumulation unit 20, which in turn includes at least a first accumulator 21

for accumulating motion reports representative of displacement detected

along the x axis and at least a second accumulator 22 for accumulating

motion reports representative of displacement detected along the y axis) in

which the digitized displacement comprises a plurality of directional displacements having at

least a first directional displacement *(col. 6, reports representative of displacement*

detected along an X axis) and a second directional displacement *(col. 6, lines 26-28,*

reports representative of displacement detected along a Y axis), the

accumulated value comprises a plurality of directional accumulated values having at least a first

directional accumulated value *(col. 6, lines 24-26, at least a first a first*

accumulator (21) for accumulating motion reports representative of

displacement detected along an X axis and col. 6, lines 40-41, counts

accumulated in an accumulator (21)) and a second directional accumulated value *(col.*

6, lines 26-28, at least a second accumulator (22) for accumulating motion

reports representative of displacement detected along a Y axis, col. 6, lines

40-41, counts accumulated in an accumulator (22), and the accumulation

procedure accumulates the first directional displacement to yield the first directional

accumulated value *(col. 6, lines 25-28, col. 6, lines 40-41, displacement*

detected along the X axis corresponds to counts accumulated in the

accumulator (21)), and the second directional displacement to yield the second directional

accumulated value *(col. 6, lines 25-28, col. 6, lines 40-41, displacement*

detected along the Y axis corresponds to counts accumulated in the

accumulator (22)), wherein the accumulated value satisfies a preset condition that the first

directional accumulated value *(col. 6, lines 53-57, col. 6, lines 65-67, a resolution*

corresponding to an accumulated counts from an accumulator (21), or

detection resolution is 32512 cpi) is not equal to a 0 *(note that 32512 cpi is not*

equal to 0) and the second directional accumulated value *(col. 6, lines 43-45, col. 6,*

lines 53-56, col. 6, lines 65-67, a resolution corresponding to an

accumulated counts from an accumulator (22), or detection resolution is

32512 cpi) is not equal to a 0 *(note that 32512 cpi is not equal to 0),* the

accumulated value is output to a processing device *(col. 7, lines 44-45, X/Y report*

counts are reported to the PC or external controller) and a reset procedure is

executed to reset the accumulated value *(col. 7, lines 18-20, col. 7, lines 46-49, the*

accumulators (21, 22) may be reset after a motion report has been

outputted by unit 2).

Lauffenburger teaches a pointing device, whose motion reports are

converted and outputted to PC or external controller (col. 3, lines 7-9, col. 7,

lines 44-45).

Note that Lauffenburger's PC to which motion reports are converted

and outputted is already equipped with a display and pointer on a display.

Lauffenburger does not specifically teach a pointing device with al locus smoothing

function such that a processing device is for smoothing a locus of a pointer on a display device.

Kemper et al on the other hand teach a process for smoothing a

mouse pointer track on a screen (col. 3, lines 19-24), as shown in Fig. 3 with

a pointing device such as a mouse (301) used for smoothing which is done

through selection of an appropriate algorithm (303) followed by application

of movement smoothing correction (305) (col. 5, lines 46-51, col. 6, lines 3-

7 and col. 6, lines 57-63).

Hence, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Lauffenburger's X/Y report counts from an optical pointing device shown in Fig. 1 with an application of movement smoothing correction (305) as configured in Fig. 3, because the use of an application of movement smoothing correction (305) enables a mouse to control the movement of screen pointer more effectively as taught by Kemper (col. 5, lines 46-49, col. 6, lines 60-63).

Regarding claim 16, Lauffenburger teaches a pointing device *(col. 3, lines 7-11, an optical pointing device)*, comprising the steps of: receiving a digitized displacement and executing an accumulation procedure to generate an accumulated value of displacement *(col. 6, lines 20-28, FIG. 2 (20,21, 22), Post processing unit (2) includes accumulation unit 20, which in turn includes at least a first accumulator 21 for accumulating motion reports representative of displacement detected along the x axis and at least a second accumulator 22 for accumulating motion reports representative of displacement detected along the y axis)*, in which the digitized displacement comprises a plurality of directional displacements having at least a first directional displacement *(col. 6, reports representative of displacement detected along an X axis)* and a second directional displacement *(col. 6, lines 26-28, reports representative of displacement detected along a Y axis)*, the accumulated value comprises a plurality of directional accumulated values having at least a first

directional accumulated value *(col. 6, lines 24-26, at least a first a first accumulator (21) for accumulating motion reports representative of displacement detected along an X axis and col. 6, lines 40-41, counts accumulated in an accumulator (21))* and a second directional accumulated value *(col. 6, lines 26-28, at least a second accumulator (22) for accumulating motion reports representative of displacement detected along a Y axis, col. 6, lines 40-41, counts accumulated in an accumulator (22),* and the accumulation procedure accumulates the first directional displacement to yield the first directional accumulated value *(col. 6, lines 25-28, col. 6, lines 40-41, displacement detected along the X axis corresponds to counts accumulated in the accumulator (21))*, and the second directional displacement to yield the second directional accumulated value *(col. 6, lines 25-28, col. 6, lines 40-41, displacement detected along the Y axis corresponds to counts accumulated in the accumulator (22))*, determining whether the accumulated value satisfies a preset condition requires that the first directional accumulated value *(col. 6, lines 53-57, col. 6, lines 65-67, a resolution corresponding to an accumulated counts from an accumulator (21), or detection resolution is 32512 cpi)* is not equal to 0 *(note that 32512 cpi is not equal to 0)* and the second directional accumulated value *(col. 6, lines 43-45, col. 6, lines 53-56, col. 6, lines 65-67, a resolution corresponding to an accumulated counts from an accumulator (22), or detection resolution is 32512 cpi)* is not equal to 0 *(32512 cpi is not equal to 0)*,

if so, the accumulated value is output to a processing device *(col. 7, lines 44-45, X/Y*

report counts are reported to the PC or external controller) and a reset procedure

is executed to reset the accumulated value *(col. 7, lines 18-20, col. 7, lines 46-49, the*

accumulators (21, 22) may be reset after a motion report has been

outputted by unit 2).

Lauffenburger teaches a pointing device, whose motion reports are

converted and outputted to PC or external controller (col. 3, lines 7-9, col. 7,

lines 44-45).

Note that Lauffenburger's PC to which motion reports are converted

and outputted is already equipped with a display and pointer on a display.

Lauffenburger does not teach a locus smoothing method appropriate for a pointing device

such that a processing device is for smoothing a locus of a pointer on a display device.

Kemper et al on the other hand teach a process for smoothing a

mouse pointer track on a screen (col. 3, lines 19-24), as shown in Fig. 3 with

a pointing device such as a mouse (301) used for smoothing which is done

through selection of an appropriate algorithm (303) followed by application

of movement smoothing correction (305) (col. 5, lines 46-51, col. 6, lines 3-7 and col. 6, lines 57-63).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Lauffenburger's X/Y report counts from an optical pointing device shown in Fig. 1 with an application of movement smoothing correction (305) as configured in Fig. 3, because the use of an application of movement smoothing correction (305) enables a mouse to control the movement of screen pointer more effectively as taught by Kemper (col. 5, lines 46-49, col. 6, lines 60-63).

Allowable Subject Matter

6.   Claims 9 and 18-20 are allowed.

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abbas I. Abdulselam whose telephone number is 571-272-7685. The examiner can normally be reached on Monday though Friday from 9:00 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
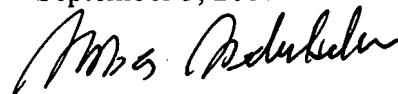
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system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abbas I Abdulselam
Examiner
Art Unit 2629
September 3, 2007